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LOS ANGELES, CA 90014				
EXAMINER				
DODD, RYAN P				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/561,893

Applicant(s)

EBERLE ET AL.

Examiner

RYAN DODD

Art Unit

4134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) 3, 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/22/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

1. Claims 3 and 10 are objected to because of the following informalities:

- The word "as" in claim 3 is grammatically unclear.
- There is no need to reference "Fig.3" in claim 10.

Appropriate correction is required.

Specification

2. The disclosure is objected to because of the following informalities:

- "aart" in the first sentence of the third paragraph on page 1, is misspelled.
- "incuding", in the fifth line of the fourth paragraph of page 2, is misspelled.

Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore,

- the B-end bearing plate, as in claim 1,
- the additional stationary rack parallel with first rack as in claim 7, and

- felt material over a portion of its length, as in claim 8 , and
- the rotary leadthrough for the introduction of lubricant, as in claim 9

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-10 recite the limitation "at the B-end bearing plate" in the fourth line. This limitation in the claim lacks antecedent basis.

6. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 recites the limitation "meshes with an additional stationary rack parallel with first rack". This limitation in the claim lacks antecedent basis.

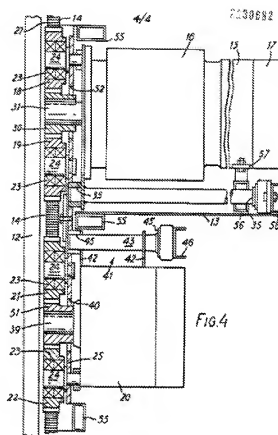
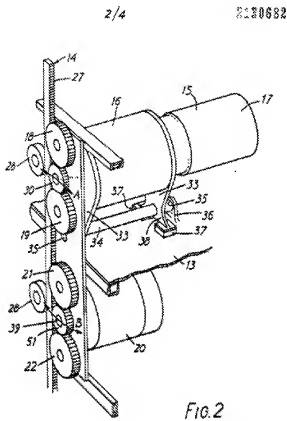
Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 and 6 are rejected under 35 U.S.C. 102 (b) as being anticipated by Martin GB002130682A (hereinafter Martin '682).



9. As to claim 1, Martin '682 discloses a drive assembly for a preferably vertically movable carriage (mounting plate 25, page 2, line 95), a correspondingly disposed stationary rack (14) of which the associated pinion (30) is operable for vertically moving carriage (mounting plate 25) through a transmission (gearbox 16) by means of a drive motor (15) having a static current actuated brake (electromechanical brake 17) at the end of the B-end bearing plate (flange or brackets 33), with additional carriage retaining means provided and engageable as needed to secure the vertically movable carriage in place, characterized by said retaining means comprising an additional brake unit (overspeed safety brake 20, page 2, line 11) disposed on a carriage

(mounting plate 25) and adapted to cause a pinion (51) of its own to directly engage rack (14), with pinion (51) idling along with the normal movements of carriage (mounting plate 25), and with brake unit (safety brake 20) adapted to be actuated independently from static-current brake (electromechanical brake 17, page 2, line 78).

10. As to claim 6, Martin '682 discloses the drive assembly as in claim 1, characterized by brake unit (safety brake 20 to be of the type described in Martin GB 2074673, (hereinafter Martin '673), page 2, lines 84-86). Martin '673 discloses a brake unit (brake 60) having two or more brake rotors (brake discs 66, column 5, line 22).

Claim Rejections - 35 USC § 103

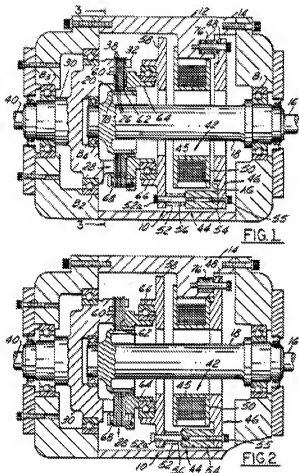
11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin '692 in view of Mabee, US 5172798 A, (hereinafter Mabee'798). Martin '692 discloses the drive assembly as in claim 1, characterized in that, at the same time, a shaft (39) of pinion (51) [...]. However, Martin '692 lacks "[...] constitutes shaft of brake rotor and is supported by bearings disposed in opposite

side walls of brake housing or solenoid support housing, respectively, so as to obtain the greatest possible distance between such bearings.” Mabee ‘798 discloses a shaft (drive shaft 16) of brake rotors (annular discs 26, see column 1, lines 43-45, and lines 51-55) and is supported by bearings (B1 and B3) disposed in opposite side walls of brake housing (housing 14) so as to obtain the greatest possible distance between such bearings.

13. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to form the shaft of pinion (2) to constitute the shaft of brake rotor (8 or 9) and support the shaft (3) by bearings (14, 15) disposed in opposite side walls of brake housing (11), as taught by Mabee ‘798, so as to obtain the greatest possible distance between such bearings, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Please note that in the instant application, applicant has not disclosed any criticality for the claimed limitations.



Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin '692 in view of Dropmann, US 6202804 B1 (hereinafter Dropmann '804).). As to claim 3, Martin '692 discloses the drive assembly as in claim 1, characterized by a brake unit (overspeed safety brake 20), but lacks a static-current actuated, normally energized electromagnetic brake. Dropmann '804 teaches a static-current actuated, normally energized electromagnetic brake (electromagnetically releasable friction safety brake 20). (Abstract; See also column 4, lines 50-

54).

14. The claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Martin '692's brake with an electromagnetically releasable friction safety brake, which is known in the art, (referred to in Applicant's Specification as an electromagnetically disengaged, and compression spring actuated brake), to yield predictable results.

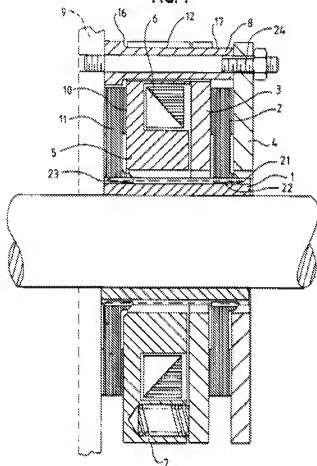
15. As to Claim 5, Martin '692 discloses the claimed invention, except for "characterized in that bearing has a greater diameter than splined hub of the brake so that shaft is formed to be integral with hub." Dropman '804 discloses a hub (1) of the brake (electromagnetically releasable friction safety brake 20), fixed on a central shaft. (column 2, line 57) .

16. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the shaft (3) as integral with splined hub (12), since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Please note that in the instant application, (page 5, paragraph 3) applicant has not disclosed any criticality for the claimed limitation.

17. At the time the invention was made, it would have been an obvious matter of design choice

to a person of ordinary skill in the art to use a bearing of greater diameter than a hub because Applicant has not disclosed that a bearing 14 of greater diameter provides an advantage, is used for a particular purpose, or solves a stated problem, and that a bearing of lesser diameter could not. Applicant has not disclosed that a bearing of lesser diameter could not form a shaft (3) to be integral with hub (12). One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a bearing of lesser diameter than the hub because it could ostensibly perform the same function as a bearing of greater diameter than the hub. Therefore, it would have been an obvious matter of design choice to modify Martin '692 in view of Dropman '804 to obtain the invention as claimed.

FIG. 1



18. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin '692 in view of Albrecht US 6543587, (hereinafter Albrecht '587). Martin '692 discloses the drive assembly as in claim 1, characterized by a brake unit (overspeed safety brake 20), but lacks that brake unit being pneumatically or hydraulically actuated. However, Albrecht '587 discloses a brake unit (brake assembly) that is hydraulically actuated (frictional engagement with the braking surface of the rotor when hydraulic fluid pressure is supplied).(Abstract).

19. The claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Martin '692's brake with one that is hydraulically actuated, as taught by Albrecht '587, to yield predictable results.

20. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin '692 in view of Peterson, US 4570505, (hereinafter Peterson '505). Martin '692 discloses the drive assembly as in claim 1, and a brake unit (overspeed safety brake 20). Peterson '505 discloses a pinion formed of felt material over a portion of its length for rack lubrication. (column 2, lines 22-24). Although Peterson teaches a drive box and not a brake unit, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the concept of a felt material on a pinion to facilitate rack lubrication where the pinion is connected to a brake and not a drive box.

21. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin '692 in view of Peterson, '505, and Kaneko, US 4688660 (hereinafter Kaneko '660). Martin '692 and Peterson '505 discloses the claimed invention except for, "characterized in that shaft of pinion has in end face a rotary leadthrough for the introduction of lubricant to be supplied to the felt portion of pinion." Kaneko '660 discloses an oil keep groove on a hollow rotary shaft (column 2, lines 19, 20), which

could be used for the introduction of lubricant to be supplied to the felt portion of pinion, as taught by Martin '692 and Peterson '505.

22. The claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a pinion (2) of brake unit (20) of Martin '692's drive assembly of felt material over a portion of its length for rack lubrication, as taught by Peterson '505. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a rotary leadthrough in the end face (19) of that shaft (3) for the introduction of lubricant to be supplied, as taught by Kaneko '660, to the felt portion of pinion (2).

23. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin '692. Martin '692 discloses the claimed invention except for the two parallel flats (17), machined away for reducing its structural height, i.e. the distance thereof to drive motor(2) on carriage (13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to machine away the two parallel flats, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*,

136 USPQ 184. It is well known in the art to machine away material in order to fit elements in an optimal manner. Please note that in the instant application, page 3, 1st paragraph applicant has not disclosed any criticality for the claimed limitations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN DODD whose telephone number is (571)270-1161. The examiner can normally be reached on Monday thru Friday, 7:30A-5P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571)272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Ryan Dodd/

Examiner, Art Unit 4134

/George Nguyen/

Supervisory Patent Examiner, Art Unit 4134